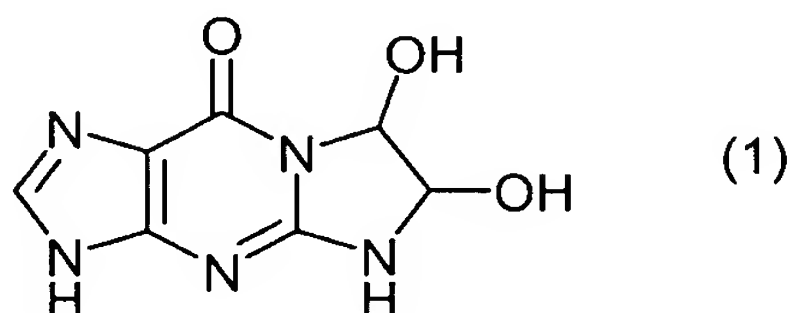


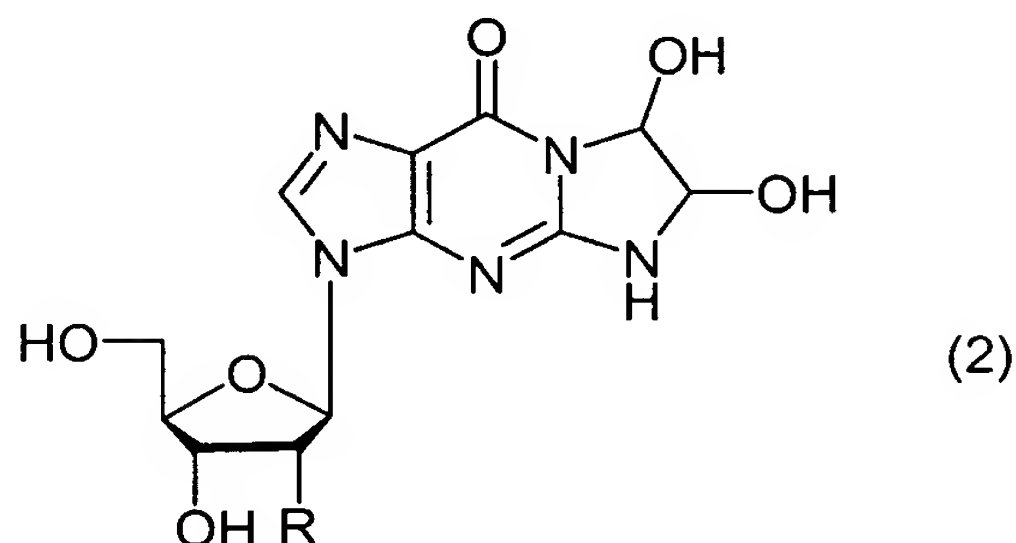
WHAT IS CLAIMED IS:

1. A method of preparing a guanosine-group compound, which comprises the steps of:

reacting glyoxal-guanine represented by formula (1):



with ribose-1-phosphate or 2-deoxyribose-1-phosphate in the presence of purine nucleoside phosphorylase, thereby obtaining a compound represented by formula (2):



wherein R represents a hydrogen atom or a hydroxyl group; and

10 decomposing, by alkali, the compound represented by formula (2), thereby obtaining guanosine or 2'-deoxyguanosine.

2. The method of preparing a guanosine-group compound according to claim 1, wherein, as purine nucleoside phosphorylase, a microorganism itself which contains said enzyme or said enzyme derived from the microorganism are used.

15 3. The method of preparing a guanosine-group compound according to claim 2, wherein the microorganism belongs to *Bacillus* genus, *Escherichia* genus or *Klebsiella* genus.

4. The method of preparing a guanosine-group compound according to claim 2, wherein the microorganism is *Bacillus stearothermophilus* JTS 859 (FERM BP-6885),  
20 *Escherichia coli* IFO 3301, *Escherichia coli* IFO 13168, or *Klebsiella pneumoniae* IFO 3321.

5. The method of preparing a guanosine-group compound according to claim 3, wherein the microorganism is *Bacillus stearothermophilus* JTS 859 (FERM BP-6885), *Escherichia coli* IFO 3301, *Escherichia coli* IFO 13168, or *Klebsiella pneumoniae* IFO 3321.

5 6. The method of preparing a guanosine-group compound according to claim 1, wherein at least one compound selected from the group consisting of glycine, iminodiacetic acid, nitrilotriacetic acid, ethylenediaminetetraacetic acid, ethylene glycol bis ( $\beta$ -aminoethyl ether)-N,N,N',N'-tetraacetic acid and salts thereof is added, or the above at least one compound is added in combination with boric acid or a salt thereof.

10 7. The method of preparing a guanosine-group compound according to claim 2, wherein at least one compound selected from the group consisting of glycine, iminodiacetic acid, nitrilotriacetic acid, ethylenediaminetetraacetic acid, ethylene glycol bis ( $\beta$ -aminoethyl ether)-N,N,N',N'-tetraacetic acid and salts thereof is added, or the above at least one compound is added in combination with boric acid or a salt thereof.

15 8. The method of preparing a guanosine-group compound according to claim 3, wherein at least one compound selected from the group consisting of glycine, iminodiacetic acid, nitrilotriacetic acid, ethylenediaminetetraacetic acid, ethylene glycol bis ( $\beta$ -aminoethyl ether)-N,N,N',N'-tetraacetic acid and salts thereof is added, or the above at least one compound is added in combination with boric acid or a salt thereof.

20 9. The method of preparing a guanosine-group compound according to claim 4, wherein at least one compound selected from the group consisting of glycine, iminodiacetic acid, nitrilotriacetic acid, ethylenediaminetetraacetic acid, ethylene glycol bis ( $\beta$ -aminoethyl ether)-N,N,N',N'-tetraacetic acid and salts thereof is added, or the above at least one compound is added in combination with boric acid or a salt thereof.

25 10. A method of preparing a guanosine-group compound according to claim 5, wherein at least one compound selected from the group consisting of glycine, iminodiacetic acid, nitrilotriacetic acid, ethylenediaminetetraacetic acid, ethylene glycol bis( $\beta$ -aminoethyl ether)-N,N,N',N'-tetraacetic acid and salts thereof is added, or the above at least one compound is added in combination with boric acid or a salt thereof.

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